

March 7, 2014

Marlene H. Dortch Office of the Secretary Federal Communications Commission 445 12<sup>th</sup> Street, SW Washington, DC 20554

Re: WC Docket No. 10-90, Expression of Interest

Ms. Dortch;

Stratford Mutual Telephone Company (Stratford) hereby provides this "Expression of Interest" in conjunction with the Commission's rural broadband experiments to provide robust, scalable high-speed broadband to unserved high-cost areas with additional Connect America funding. <sup>1</sup>

### **Background**

Stratford Mutual Telephone Company (Stratford) is an incumbent local exchange carrier (ILEC) and an eligible telecommunications carrier (ETC) located in central Iowa. The company has seven (7) employees and has provided voice service to rural Iowa customers since 1898. Today, Stratford provides voice, video, and data services in its Stratford, Iowa exchange through a Fiber to the Home (FTTH) network which was deployed in 2005. The company also provides cable TV and data services to the rural Iowa towns of Jewell, Gilbert, and Roland.

#### **Description of the Project**

Since 2005, rural customers in the Stratford exchange have enjoyed the capabilities of a FTTH network. These customers have expanded their use of the company's data network substantially over the course of nine (9) years and continue to use more bandwidth each year. Stratford's experience with the customers in its Stratford, Iowa exchange provide clear data of the demand for high-speed broadband in rural areas.

Customers in the rural areas surrounding Gilbert and Roland, Iowa do not have access to high-speed broadband networks. The sparsely populated census tracts within the proposed service area contain, approximately, 3.4 eligible rural customers per square mile. Stratford seeks to expand its network to provide FTTH services to these rural customers as well as other unserved rural customers in northeast Boone and northern Story counties in Iowa. The company intends to deploy FTTH technology to the unserved eligible locations within the geographic area indicated below.

<sup>&</sup>lt;sup>1</sup> See Technology Transitions et al., GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 20 14).



#### **Proposed Technology**

Stratford will initially deploy a FTTH network using fiber electronics capable of providing broadband in a range of service options up to one (1) Gigabit Ethernet (GE) service. Greater broadband speeds are achievable with current technology and will be deployed to meet demand on an as needed basis. A network interface device will be installed at each customer location and will be equipped with battery backup capability in case of electrical power outages. The company will utilize its existing middle mile infrastructure to minimize construction cost. The company also has connections to a statewide network which provides connectivity to internet backbone providers.

Stratford's proposed solution will be deployed over an existing FTTH system with the capability to deliver 2.1 Gbps through either a Gigabit Passive Optical Network (GPON) solution or an Active Gigabit Ethernet (GE) solution using the same platform. This system allows the flexibility to meet current and future bandwidth requirements of video, data and voice and easily move to full gigabit ethernet solution if required. The term gigabit community already describes the service available in the Stratford exchange and the company looks to further expand the solution into the proposed rural areas.

In addition to a deployable FTTH solution, Stratford's system will also scalable to a 10 gigabit capacity by simply changing out optical electronics within the deployed system. This allows Stratford to increase bandwidth capacity to residential customers, businesses, or anchor institutions to meet future bandwidth demands. In addition, the proposed fiber is capable of providing 100 gigabit connections over 40 wavelengths with today's technology. Once fiber is deployed, the only limitations are the developed electronics available in the market place.

#### **Anchor Institutions**

Based on the proposed service area, there are no anchor institutions that are incapable of accessing broadband service at a minimum speed of 3 Mbps downstream / 768 kbps upstream. However, deployment of high speed broadband service will enable these rural customers to access information and services currently offered by anchor institutions as well as commercial businesses. Educational institutions are already implementing laptop programs which provide students with a laptop computer to enhance their educational experience. Without access to high-speed broadband service, these students are left behind.

## **Proposed Services and Pricing**

The company will offer Data, Voice, and Video services to customers within the proposed rural census tracts. Stratford will offer broadband service at a minimum speed of 5 Mbps Downstream / 2.5 Mbps Upstream for \$45 per month with various service tiers up to 20 Mbps downstream / 10 Mbps upstream for \$85 per month. Additional service tiers up to 1 Gbps will be added as demand for those services becomes evident.



## **Geography and Eligible Locations**

The company proposes to provide voice, video, and data services through a state of the art fiber network in the following census tracts:

State	County Name	Census Tract	Eligible Locations	Extremely High Cost Locations	Total
IA	Boone	19015020100	715	51	766
IA	Story	19169000100	307	36	343
IA	Story	19169010500	212	42	254
IA	Story	19169010600	99	9	108
	Total		1,333	138	1,471

# **Project Cost / Funding**

The estimated construction cost is a high level estimate based on historical data. The total estimated construction cost for the project is:

Project Recap:					
Estimated Construction Cost:	\$9,600,000				
Funded By:	· - T				
Company Matching Funds	\$1,600,000				
Rural Broadband Experiment Funding (Requested as one time funding)	\$8,000,000				
Total Funding	\$9,600,000				

Stratford Mutual Telephone Company appreciates the opportunity to provide this expression of interest for funding of rural broadband experiments. Please contact the undersigned with any questions.

Respectfully submitted,

Randy Baker General Manager